

BRIEF COMMUNICATION

FIRST SOUTH AUSTRALIAN RECORD OF THE CARRION-BREEDING BLOWFLY
CALLIPHORA NIGRITHORAX MALLOCH (DIPTERA: CALLIPHORIDAE)

Carrion-breeding blowflies are important ecologically, medically and forensically¹. In view of the difficulties encountered in identifying them, it is therefore crucial that their distributions should be fully documented. This paper records for the first time the occurrence of one such species, *Calliphora nigrithorax* Malloch, 1927², in South Australia.

Recently, a single female of *C. nigrithorax* was collected in a liver-baited trap on the North Terrace campus of the University of Adelaide (20.vii.1993). *C. nigrithorax*, together with its sister species *C. ochracea* Schiner, 1868³, is distinctive among Australian *Calliphora* in having dense erect yellow hairs on the eyes and an entirely reddish abdomen. It is distinguished from *C. ochracea* by whitish pruinosence (dusting) on the mesonotum rather than yellowish².

Publications defining the distributions of Australian *Calliphora* record *C. nigrithorax* as restricted to Tasmania^{4,5}. These are clearly incorrect, on account of both the current record, and the holdings of the species in the Australian National Insect Collection, Canberra, in which there are specimens not only from Tasmania, but also New South Wales, the Australian Capital Territory, and Victoria⁶. The occurrence of *C. nigrithorax* in these regions was in fact first recognised in 1937⁷. Prior to my find the most westerly record of the species was from Myers Creek in Victoria

(36°23'S, 144°16'E)⁶. The new record therefore extends its known range on the mainland westwards by about 500 km.

The biology and ecology of *C. nigrithorax* are poorly known. It appears to prefer cool, moist localities. The fact that I have not previously collected this species in two years of widespread trapping of blowflies in southern South Australia suggests that it may have very specialised habitat or breeding requirements. Its sister species is only locally common in the regions from which it is known, and while apparently never having been found in carcasses or live sheep in the field, has readily oviposited in thick fur in captivity⁸. *C. nigrithorax* may be similarly specialised. Alternatively, it may be a rare generalist.

Whatever the case, now that *C. nigrithorax* is known from South Australia, all workers concerned with native blowflies, in particular forensic entomologists and those studying the ecology of carrion, should henceforth consider the possibility of encountering this species in the mesic regions of the State.

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¹Heath, A. G. C. (1982) N. Z. Entomol. 7, 343-348.

²Malloch, J. R. (1927) Proc. Linn. Soc. N.S.W. 52, 299-335.

³Schiner, I. R. (1868) Diptera. in "Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Willerstorff-Urbair". Zoologischer Theil. Zweiter Band. 1 (B). Abtheilung. (Kaiserlich-Königlichen Hof- und Staatsdruckerei, Wien).

⁴Kurahashi, H. (1971) Pac. Insects. 13, 141-204.

⁵Kurahashi, H. (1989) Calliphoridae, pp.702-718 in N. L. Evenhuis (Ed.) "Catalog of the Diptera of the Australasian and Oceanian Regions". (Bishop Museum Press, Honolulu, and E. J. Brill, Leiden).

⁶Norris, K. R. (1993) Pers. comm.

⁷Hardy, G. H. (1937) Proc. Linn. Soc. N.S.W. 62, 17-26.

⁸Fuller, M. E. (1931) Proc. Linn. Soc. N.S.W. 56, 172-181.